Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Request of PTC-220, LLC for Waivers of Certain 220 MHz Rules	)	**WT Docket No. 08-256**
	)	
Construction Progress Report	)	

To: Chief, Wireless Telecommunications Bureau

PTC-220, LLC
CONSTRUCTION PROGRESS REPORT

I. INTRODUCTION

PTC-220, LLC ("PTC-220") submits this Construction Progress Report to satisfy the requirements of paragraph 16 of the Memorandum Opinion and Order ("*2009 Waiver Order*") adopted by the Federal Communications Commission ("FCC") on June 25, 2009.[1] This Report details the progress made during the past six months in implementing the Systemwide Build-out Plan (the "Build-out Plan") submitted by PTC-220 on May 1, 2019 in the above-referenced docket. The Build-out Plan explained how PTC-220's 220 MHz licenses ("Licenses") would be used in deploying a nationwide positive train control ("PTC") system, as required by Federal

[1] *Request of PTC-220, LLC for Waivers of Certain 220 MHz Rules*, Memorandum Opinion and Order, 24 FCC Rcd 8537 (2009).

statute.[2] The construction of the Licenses will be undertaken in large part by each of PTC-220's member railroads,[3] although PTC-220 will also coordinate construction activities by non-member railroads.

II. SITE BUILD-OUT ACTIVITY

As of the last Report filed in May,[4] PTC-220's member railroads had already completed 100% of the build-out of base stations needed to provide PTC service along all track required to have PTC. Accordingly, there have been only very minor changes in the number of completed base station build-out numbers, as reported in the table below. More than 97% of the installed radios are in service and supporting PTC communications. Moreover, member railroads have also completed the installation of mobile radios throughout their locomotive fleets.

[2] In October 2015, Congress extended the PTC implementation deadline from December 31, 2015 to December 31, 2018. *See* Positive Train Control Enforcement and Implementation Act of 2015, Pub. L. No. 114-73 § 1302, 129 Stat. 568 (2015) ("*PTCEI Act*"); 49 U.S.C. § 20157(a)(1). The PTCEI Act also provided an additional two-year extension, until December 31, 2020, for testing and full implementation of PTC so long as certain milestones were achieved by the end of 2018. *Id.* at § 20157(a)(3)(B).

[3] PTC-220's members are BNSF Railway ("BNSF"), Canadian National Railway ("CN"), Canadian Pacific Railway ("CP"), CSX Transportation ("CSX"), Kansas City Southern Railway ("KCS"), Norfolk Southern Railway ("NS"), and Union Pacific Railroad ("UP").

[4] *Request of PTC-220, LLC for Waivers of Certain 220 MHz Rules*, PTC-220, LLC Construction Progress Report, WT Docket No. 08-256 (May 1, 2019).

Completed Base Station Installed Radios

State	BNSF	CN	CP	CSX	KCS	NS	UP	State Totals
AL	4	2		51		45		102
AR	7				9		29	45
AZ	21						13	34
CA	49						107	156
CO	21						59	80
FL				44		2		46
GA				66		45		111
IA	26	13	23				25	87
ID	6						24	30
IL	42	41	6	22	5	26	53	195
IN		3		49		32		84
KS	40				3		36	79
KY		3		61		15		79
LA	6	7		1	29	2	22	67
MA				19				19
MD				41		3		44
MI		18		19		4		41
MN	36	7	29				3	75
MO	41		7		14	7	29	98
MS	3	26		3	12	11		55
MT	67							67
NC				38		29		67
ND	54		16					70
NE	33						38	71
NJ				6		4		10
NM	16						15	31
NV							58	58
NY			14	65		14		93
OH		1		76		41		118
OK	26				6		10	42
OR	13						81	94
PA				54		75		129
SC				58		22		80
SD	10							10
TN	2	5		61		31	1	100
TX	65				25		137	228
UT							39	39
WA	53						19	72
WI	3	26	15				15	59
WV				110		11		121
WY	6						28	34
VA				65		52		117
Total	**650**	**152**	**110**	**909**	**103**	**471**	**839**	**3236**

III. SPECTRUM

A. Spectrum Capacity

As previously reported, PTC-220 identified dozens of markets across the country where additional spectrum will be needed in the future to provide for PTC deployment growth and to support increased PTC reliability through the deployment of two additional common channels that will provide for needed communications redundancy. Because the PTC networks of the freight railroads can only utilize spectrum in the 219.5 – 222 MHz range, PTC-220 is limited in what spectrum it can acquire to meet this additional capacity demand. Earlier this year, PTC-220 acquired spectrum at 219.5-220 MHz covering four Automated Maritime Telecommunications System ("AMTS") license regions. In September, PTC-220 filed a request for special temporary authority ("STA") so that it could begin operating on the spectrum in 18 priority markets, pending the completion and approval of Channel 13 interference studies that are required in order to obtain permanent operating authority. The STA remains pending. In July, PTC-220 filed an application to acquire a fifth AMTS license, for AMTS Region 10. That application remains pending. All of the AMTS applications include a request for the waiver of certain AMTS rules that will be necessary to make this spectrum usable for PTC.

In Southern California, PTC-220 and the Southern California Regional Rail Authority ("SCRRA") have filed an application for a *de facto* transfer lease of SCRRA's AMTS spectrum that will create a unified pool of frequencies in the 219 MHz and 220 MHz bands under PTC-220's direction, which will allow PTC-220 to serve as a single point of coordination for PTC operations in southern California. Combining the bands into an interoperable and integrated network will create a much larger pool of frequencies that can be shared among all railroads in

the region. As the *de facto* lessee, PTC-220 will lease access to the 219 MHz band back to SCRRA and to its own member railroads.

B. Non-Member Spectrum Leases

PTC-220 currently has active spectrum manager leases with several non-member railroads including Amtrak, CalTrain, Conrail, MetroLink (SCRRA), North Country Transit District, Northern Indiana Commuter Transportation District, Metra, Massachusetts Bay Transportation Authority, Sound Transit, and the Terminal Railroad Association of St. Louis. In addition, Dallas Area Rapid Transit, Kansas City Terminal Railway, the South Florida Regional Transportation Authority and the State of Florida, DOT, have entered into sublease arrangements with PTC-220 members BNSF and CSX, respectively. PTC-220 also has a testing lease with Belt Railway Company of Chicago. Additional non-member railroads are currently considering leasing arrangements with PTC-220, and PTC-220 anticipates possible future negotiations with other non-member railroads. Some short-line railroads may also need long-term spectrum leases, depending on the PTC requirements of their owned track.

IV. CONCLUSION

As previously reported, PTC-220's member railroads have completed the deployment of the necessary RF infrastructure to support PTC. Over the past six months, PTC-220 has focused its efforts on acquiring additional spectrum in the 219 MHz AMTS band that will provide for additional capacity to support improvements in PTC reliability. Because some areas are already approaching the limits of PTC-220's existing 220 MHz spectrum resources, PTC-220 has sought an STA to allow it to begin operations on its AMTS channels in 18 priority markets, pending its permanent authorization.

Respectfully submitted,

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